

**Re: HPA APP ID #14829**

**Fish Ladder Monitoring Report for November 30<sup>th</sup> through December 6<sup>th</sup>, 2020**

For the week of November 30<sup>th</sup>, the ladder was observed on December 3<sup>rd</sup> from 11:20 – 12:25. The river conditions and fish ladder were monitored from the ladder side (east bank) of the river. River discharge on Dec 3<sup>rd</sup> was approximately 325 cfs during the time of observation, with a maximum of 345 and minimum of 315 cfs for the day. The weekly high total river discharge reached 475 cfs, and the weekly low reached 305 cfs. At the ladder, a staff gage placed at the edge of a weir wall measured a water column height of 0.7 ft. Weather conditions were mostly overcast, with no rain at the time of observation. Ambient air temperature was 5.4°C. The drop height from the last ladder cell to the raceway appears to be at the 12” or greater mark, and an adjustment of the cell drop height may be necessary soon.

No fish were observed this week at the ladder or the surrounding spillway area. No obstructive woody debris accumulated within 100 m of the ladder, and the bedload present in the ladder is not adversely affecting flow or ladder function. Bedload accumulation will be removed in the coming weeks when permitting allows.



Photo 1: Ladder outflow on December 3<sup>rd</sup>.



Photo 2: Staff gage measurement on top weir wall edge.

# Fish Ladder Monitoring Report Checklist – HPA APP ID # 14829

This checklist must be completed and submitted weekly to WDFW at [HPAapplications@dfw.wa.gov](mailto:HPAapplications@dfw.wa.gov)

- Fish ladder monitoring must be conducted by a qualified fisheries biologist, hydrologist, or hydraulic engineer that has adequate experience with fish passage projects.
- The fish ladder must be monitored **daily** from October 15, 2020 to November 15, 2020.
- The fish ladder must be monitored **once a week** from November 15, 2020 to July 15, 2021.

**Reporting Fish Passage non-compliance:** Report instances where fish passage or the fish ladder require maintenance or repair, such as, but not limited to: A water surface drop at the fish ladder that prevent adult migration; -Debris issues that impact flow in the ladder or prevent fish from using the ladder; -There is a fish ladder outage and the ladder must intentionally be closed. If the outage will last longer than 48 hours, there must be a contingency plan for providing fish passage.

Monitoring Point	Condition of Monitoring Point & Action Taken
Velocity(cfs) entering/leaving fish ladder	Total river cfs: 325 cfs @ 12:00   ladder staff gage: 0.7a.
Height of water surface drop – Last Cell to Tailrace	~ 12" - 16" - needs adjusting
Debris at ladder intake: impairing flow or impeding fish passage?	None
Debris at ladder outlet (downstream entrance): impairing flow or impeding passage?	None
Any attraction flow issues? Fish observed jumping at barrier instead of ladder?	No fish observed.
Were any photos able to be taken of observed fish? How many fish were observed?	—
Any additional site data collected? (weather, temperature, debris load, color of river water, etc)	5.4°C, overcast.
Do/did any issues of non-compliance require reporting to WDFW?	Yes: Ladder cell drop height

Personnel Name & qualification Mallory Vayk, Fisheries biologist  
 Date 12/3/20 (Thursday)